

- cp 185. The system of claim 159, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter comprises a styrene-butadiene copolymer to make the filter hazy.

Response to Office Action Mailed February 28, 2001

A. Claims In The Case

Claims 95-101, 103-106, 141-153, 156, 157, 159-165, 167-183, 186, and 187 have been rejected. Claims 102, 154-155, 158, 166, 184-185, and 188 have been objected to. Claims 153 and 183 have been cancelled. Claims 100, 145, 154, 155, 164, 175, 184, and 185 have been amended. Claims 95-106 and 141-152, 154-182, and 184-188 are pending.

B. Information Disclosure Statement

The Examiner states that:

The information disclosure statement filed on June 28, 2000 lists several foreign documents and non-patent literature...However the file wrapper for 08/959973 did not contain most of these references, and therefore these references have not considered and marked....

(Office Action, page 2).

Although Applicant is not required to re-submit copies of the references, Applicant has enclosed copies of these documents with this response for the convenience of the Examiner. In addition, Applicant further encloses a new PTO-1449 form. Applicant respectfully requests that the Examiner consider these references and indicate such on the new PTO-1449 form.

C. Specification Objections

The Examiner objected to the specification for failing to provide an antecedent basis for all of the claimed subject matter. Applicant respectfully disagrees.

Claims 145 and 175 state, in part "the controller is configured to stop application of light to the lens forming composition after substantially all of the lens forming composition has been cured." The specification states:

When the reaction nears completion the controller detects the lack of response to the last exposure (i.e. the lens temperature did not increase appreciably). At this point the controller may apply a final dose to assure a substantially complete cure and notify the operator that the mold assembly is ready to be removed from [sic] the chamber.

(Specification, page 178, lines 19-22).

Therefore, Applicant respectfully submits that the Specification provides antecedent basis for all of the claimed subject matter.

D. The Claims Are Not Indefinite Pursuant to 35 U.S.C. §112, Second Paragraph

The Examiner rejected claims 100, 145, 153, 164, 175, and 183 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 153 and 183 have been cancelled, so their rejection is moot. Claims 100, 145, 164, and 175 have been amended for clarification.

E. The Claims Are Not Obvious Over Buazza '816 In View Of Baskerville Pursuant to 35 U.S.C. § 103(a)

The Examiner rejected claims 95-99, 103-106, 147-150, and 156 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,415,816 to Buazza et al. (hereinafter "Buazza '816") in view of U.S. Patent No. 4,576,766 to Baskerville et al. (hereinafter "Baskerville"). Applicant respectfully disagrees with these rejections.

In order to reject a claim as obvious, the Examiner has the burden of establishing a *prima facie* case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 USPQ 173, 177-178 (CCPA 1967). To establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP § 2143.03.

Independent claim 95 recites, in part “a lens forming composition adapted to be disposed within the mold cavity...comprising: ...a light absorbing compound that substantially absorbs light having a wavelength in a first range.” Applicant submits that the cited art, individually or in combination, do not appear to teach or suggest all of the features of the claims including, but not limited to, a lens forming composition adapted to be disposed within a mold cavity including a light absorbing compound.

The Examiner states “Buazza et al. fail to teach the lens forming composition to comprise a light absorbing compound that substantially absorbs light.” (Office Action, page 7).

Baskerville discloses photochromic compounds and their use in photoreactive lenses. Baskerville, however, does not appear to teach or suggest a lens forming composition adapted to be disposed within a mold cavity including a light absorbing compound. For example, Baskerville describes a method for “incorporating fulgides and fulgimides...into articles made from plastics materials and of obtaining an article which colours in sunlight and bleaches in the absence of sunlight.” (Baskerville, column 1, lines 43-46). Baskerville also states that “in the case of cast materials the precursor may not be converted in situ into a heliochromic compound at the temperatures prevailing during the curing cycle.” (Baskerville, column 3, lines 12-15). In addition, Baskerville states that “after removal from the mould the cured article was pale yellow and not heliochromic, it was then exposed to constant radiation from a UV source for 60 minutes at 50 °C. At the end of that time the cast article had acquired heliochromic properties.” (Baskerville, column 5, lines 21-25). Therefore, Applicant submits that Baskerville does not teach or suggest a lens forming composition adapted to be disposed within a mold cavity including a light absorbing compound

Furthermore, modifying a lens forming composition of Baskerville such that the lens forming composition of Baskerville adapted to be disposed within a mold cavity includes a light absorbing compound will render the invention of Baskerville unsatisfactory for its intended purpose. For example, Baskerville states that "it is necessary to operate a curing temperature under 100 °C and a substantially colourless or slightly yellow article is generally produced which can be rendered heliochromic by a post-treatment, e.g. irradiation from a UV source." (Baskerville, column 3, lines 15-20). Baskerville further states that "the lens may also be irradiated while it is still within the mould although in general this is unlikely to produce a satisfactory photoreactive lens." (Baskerville, column 3, lines 38-41). If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). MPEP 2143.01.

F. The Claims Are Not Obvious Over Buazza '816 In View Of Baskerville And In Further View of Costanza Pursuant to 35 U.S.C. § 103(a)

The Examiner rejected claims 100 and 151-152 under 35 U.S.C. § 103(a) as being unpatentable over Buazza '816 in view of Baskerville and in further view of U.S. Patent No. 4,077,858 to Costanza et al. (hereinafter "Costanza"). Applicant respectfully disagrees with these rejections.

In order to reject a claim as obvious, the Examiner has the burden of establishing a *prima facie* case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 USPQ 173, 177-178 (CCPA 1967). To establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP § 2143.03.

Applicant submits for at least the reasons set forth above, claim 95 and therefore dependent claims 100 and 151-152, are patentable over Buazza '816 in view of Baskerville.

Costanza discloses completely polymerized ultraviolet cured coatings. For example, Costanza states that "the use of an aliphatic saturated ether as a promoter to insure complete polymerization of residual unsaturation in ultraviolet curable coating compositions is disclosed." (Costanza, abstract, lines 1-3). Costanza, however, does not appear to teach or suggest a lens forming composition adapted to be disposed within a mold cavity including a light absorbing compound. Therefore, Applicant further submits for at least the reasons set forth above, claim 95 and therefore dependent claims 100 and 151-152, are patentable over Buazza '816 in view of Baskerville and in further view of Costanza.

G. The Claims Are Not Obvious Over Buazza '816 In View Of Baskerville And In Further View of Portney Pursuant to 35 U.S.C. § 103(a)

The Examiner rejected claims 101, 153, and 157 under 35 U.S.C. § 103(a) as being unpatentable over Buazza '816 in view of Baskerville and in further view of U.S. Patent No. 4,842,782 to Portney et al. (hereinafter "Portney"). Applicant respectfully disagrees with these rejections.

In order to reject a claim as obvious, the Examiner has the burden of establishing a *prima facie* case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 USPQ 173, 177-178 (CCPA 1967). To establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP § 2143.03.

Applicant submits for at least the reasons set forth above, claim 95 and therefore dependent claims 101, 153, and 157, are patentable over Buazza '816 in view of Baskerville.

Portney discloses methods of manufacturing ophthalmic lenses by excimer laser. For example, Portney states that "the present invention provides a method of fabricating ophthalmic lenses or similar small objects quickly and accurately by using a laser, and particularly an

excimer laser, to cut, surface-model and bevel a workpiece.” (Portney, column 1, lines 35-39). Portney, however, does not appear to teach or suggest a lens forming composition adapted to be disposed within a mold cavity including a light absorbing compound. Therefore, Applicant further submits for at least the reasons set forth above, claim 95 and therefore dependent claims 101, 153, and 157, are patentable over Buazza ‘816 in view of Baskerville and in further view of Portney.

H. The Claims Are Not Obvious Over Buazza ‘816 In View Of Baskerville And In Further View of Tarshiani Pursuant to 35 U.S.C. § 103(a)

The Examiner rejected claims 141-142, 144-145, 159-163, 167-172, 174-175, 177-180, and 186 under 35 U.S.C. § 103(a) as being unpatentable over Buazza ‘816 in view of Baskerville and in further view of U.S. Patent No. 5,422,046 to Tarshiani et al. (hereinafter “Tarshiani”). Applicant respectfully disagrees with these rejections.

In order to reject a claim as obvious, the Examiner has the burden of establishing a *prima facie* case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 USPQ 173, 177-178 (CCPA 1967). To establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP § 2143.03.

Independent claim 159 recites, in part “a lens forming composition configured to be disposed within the mold cavity...a light absorbing compound that absorbs at least a portion of the activating light in a first range during at least a portion of the curing of the monomer.”

Applicant submits for at least the reasons set forth above, claims 95 and 159 and therefore dependent claims 141-142, 144-145 and 160-163, 167-172, 174-175, 177-180, and 186, respectively, are patentable over Buazza ‘816 in view of Baskerville.

Tarshiani discloses methods for producing optical lenses. For example, Tarshiani states that "according to the invention, lens forming materials comprising liquid monomers and at least one photosensitive initiator are injected into a mold and cooled." (Tarshiani, column 3, lines 28-30). Tarshiani, however, does not appear to teach or suggest a lens forming composition adapted to be disposed within a mold cavity including a light absorbing compound. Therefore, Applicant further submits for at least the reasons set forth above, claims 95 and 159 and therefore dependent claims 141-142, 144-145 and 160-163, 167-172, 174-175, 177-180, and 186, respectively, are patentable over Buazza '816 in view of Baskerville and in further view of Tarshiani.

I. The Claims Are Not Obvious Over Buazza '816 In View Of Baskerville And In Further View of Buazza '575 Pursuant to 35 U.S.C. § 103(a)

The Examiner rejected claims 141-145, 159-163, 167-175, 177-180, and 186 under 35 U.S.C. § 103(a) as being unpatentable over Buazza '816 in view of Baskerville and in further view of U.S. Patent No. 5,928,575 to Buazza (hereinafter "Buazza '575"). Applicant respectfully disagrees with these rejections.

In order to reject a claim as obvious, the Examiner has the burden of establishing a *prima facie* case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 USPQ 173, 177-178 (CCPA 1967). To establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP § 2143.03.

Applicant submits for at least the reasons set forth above, claims 95 and 159 and therefore dependent claims 141-145 and 160-163, 167-175, 177-180, and 186, respectively, are patentable over Buazza '816 in view of Baskerville.

Buazza '575 discloses methods for eyeglass lens curing using ultraviolet light. Buazza '575, however, does not appear to teach, in combination with the other features of the claims, a

lens forming composition adapted to be disposed within a mold cavity including a light absorbing compound. Therefore, Applicant further submits for at least the reasons set forth above, claims 95 and 159 and therefore dependent claims 141-145 and 160-163, 167-175, 177-180, and 186, respectively, are patentable over Buazza '816 in view of Baskerville and in further view of Buazza '575.

J. The Claims Are Not Obvious Over Buazza In View Of Baskerville And Tarshiani And In Further View of Coughanowr Pursuant to 35 U.S.C. § 103(a)

The Examiner rejected claims 146 and 176 under 35 U.S.C. § 103(a) as being unpatentable over Buazza '816 in view of Baskerville and Tarshiani and in further view of Coughanowr et al. (Process Systems Analysis and Control: 111-121 (1965); hereinafter "Coughanowr"). Applicant respectfully disagrees with these rejections.

In order to reject a claim as obvious, the Examiner has the burden of establishing a *prima facie* case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 USPQ 173, 177-178 (CCPA 1967). To establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP § 2143.03.

Applicant submits for at least the reasons set forth above, claims 95 and 159 and therefore dependent claims 146 and 176, respectively, are patentable over Buazza '816 in view of Baskerville and Tarshiani.

Coughanowr discloses controllers and final control elements. Coughanowr, however, does not appear to teach or suggest a lens forming composition adapted to be disposed within a mold cavity including a light absorbing compound. Therefore, Applicant further submits for at least the reasons set forth above, claims 95 and 159 and therefore dependent claims 146 and 176, respectively, are patentable over Buazza '816 in view of Baskerville and Tarshiani and in further view of Coughanowr.

K. The Claims Are Not Obvious Over Buazza In View Of Baskerville And Tarshiani And In Further View of Costanza Pursuant to 35 U.S.C. § 103(a)

The Examiner rejected claims 164 and 181-182 under 35 U.S.C. § 103(a) as being unpatentable over Buazza '816 in view of Baskerville and Tarshiani and in further view Costanza. Applicant respectfully disagrees with these rejections.

In order to reject a claim as obvious, the Examiner has the burden of establishing a *prima facie* case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 USPQ 173, 177-178 (CCPA 1967). To establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP § 2143.03.

Applicant submits for at least the reasons set forth above, claim 159 and therefore dependent claims 164 and 181-182, are patentable over Buazza '816 in view of Baskerville and Tarshiani and in further view Costanza.

L. The Claims Are Not Obvious Over Buazza In View Of Baskerville And Tarshiani And In Further View of Portney Pursuant to 35 U.S.C. § 103(a)

The Examiner rejected claims 165, 183, and 187 under 35 U.S.C. § 103(a) as being unpatentable over Buazza '816 in view of Baskerville and Tarshiani and in further view Portney. Applicant respectfully disagrees with these rejections.

In order to reject a claim as obvious, the Examiner has the burden of establishing a *prima facie* case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 USPQ 173, 177-178 (CCPA 1967). To establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP § 2143.03.

Applicant submits for at least the reasons set forth above, claim 159 and therefore dependent claims 165, 183, and 187, are patentable over Buazza '816 in view of Baskerville and Tarshiani and in further view Portney.

M. Many of The Dependent Claims Are Separately Patentable.

In addition, many of the dependent claims are separately patentable. For example, claim 96, recites, in part "activating light is directed in a plurality of pulses toward at least one of the first and second mold members." The features of claim 96, in combination with the features of independent claim 95 do not appear to be taught or suggested by the prior art.

Claim 97, recites, in part "a second light generator adapted to generate and direct a pulse of activating light toward the second mold member." The features of claim 97, in combination with the features of independent claim 95 do not appear to be taught or suggested by the prior art.

Claim 98, recites, in part "a controller adapted to control the first and second light generators such that activating light is directed in a plurality of pulses toward the first and second mold members." The features of claim 98, in combination with the features of independent claim 95 do not appear to be taught or suggested by the prior art.

Claim 99, recites, in part "the first light generator is adapted to generate and direct activating light pulses with a sufficiently high intensity such that the photoinitiator forms a first polymer chain radical." The features of claim 99, in combination with the features of independent claim 95 do not appear to be taught or suggested by the prior art.

Claim 160, recites, in part "light is directed in a plurality of pulses toward at least one of the first and second mold members." The features of claim 160, in combination with the features of independent claim 159 do not appear to be taught or suggested by the prior art.

Claim 162, recites, in part “the controller configured to control the first and second light generators such that light is directed in a plurality of pulses toward the first and second mold members.” The features of claim 162, in combination with the features of independent claim 159 do not appear to be taught or suggested by the prior art.

Claim 163, recites, in part “the first light generator is configured to generate and direct activating light pulses with a sufficiently high intensity such that the photoinitiator forms a first polymer chain radical.” The features of claim 163, in combination with the features of independent claim 159 do not appear to be taught or suggested by the prior art.

N. Allowable Subject Matter

The Examiner has objected to claims 102, 154-155, 158, 166, 184-185, and 188 as being dependent on rejected claims, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. The Examiner has explained some reasons for the indication of allowable subject matter. Applicant respectfully submits that it is the combination of features in claims 102, 154-155, 158, 166, 184-185, and 188 that renders the claims distinguishable over the prior art, not just the portions of these claims cited by the Examiner.

O. Summary

Based on the above, Applicant submits that all claims are in condition for allowance. Favorable reconsideration is respectfully requested.

Applicant respectfully requests a two-month extension of time to respond to the Office Action. Applicant encloses a fee authorization in the amount of \$195 for the two month extension fee. If any further extension of time is required, Applicant hereby requests the appropriate extension of time. If any fees are inadvertently omitted or if any additional fees are required please charge those fees to Conley, Rose & Tayon, P.C. Deposit Account Number 50-

1505/5040-03206/EBM.

Respectfully submitted,

A handwritten signature in cursive script, reading "David W. Quimby".

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"Marked Up" Version of the Amended Claims

100. (amended) The system of claim 95, wherein the first light generator is further adapted to generate and direct activating light pulses with a sufficiently high intensity such that the photoinitiator forms a first polymer chain radical that reacts with [the] a co-initiator and such that the co-initiator forms a second polymer chain radical that reacts with the monomer.
145. (amended) The system of claim 142, wherein the controller is configured to stop [the] application of light to the lens forming composition after substantially all of the lens forming composition has been cured.
154. (amended) The system of claim [153] 95, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter comprises a bisphenol compound to make the filter hazy.
155. (amended) The system of claim [153] 95, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter comprises a styrene-butadiene copolymer to make the filter hazy.
164. (amended) The system of claim 159, wherein the first light generator is further configured to generate and direct activating light pulses with a sufficiently high intensity such that the photoinitiator forms a first polymer chain radical that reacts with [the] a co-initiator and such that the co-initiator forms a second polymer chain radical that reacts with the monomer.
175. (amended) The system of claim 159, wherein the controller is configured to stop [the] application of light to the lens forming composition after substantially all of the lens forming composition has been cured.

184. (amended) The system of claim [183] 159, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter comprises a bisphenol compound to make the filter hazy.

185. (amended) The system of claim [183] 159, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter comprises a styrene-butadiene copolymer to make the filter hazy